

Nip: 1 gggggtgagcttaggccggacgccggggcatcagccatgctcgaggtgcttcccctacccg 60  
|||||  
Rufi: 1 acgccggggcatcagccatgctcgaggtgcttcccctacccg 60  
START

Nip: 61 ccgccggggtacgtgcgaaacccagtggtggccgtggccgcccgaagcgcaggcgacc 120  
|||||  
Rufi: 61 ccgccggggtacgtgcgaaacccagtggtggccgtggccgcccgaagcgcaggcgacc 120

Nip: 121 actaagctccagaaagaaagggaaaaggctgaaaagaagaaagagaaaaggagtgcaggg 180  
|||||  
Rufi: 121 actaagctccagaaagaaagggaaaaggccgaaaagaagaaagagaaaaggagtgcaggg 180

Nip: 181 aaagctcttcacatggtgagatatccaagcattcaaagcgaacccaccacaagaagaga 240  
|||||  
Rufi: 181 aaagctcttcacatggtgagatatccaagcattcaaagcgaacccac---aagaagaga 237

Nip: 241 aaacatgaagacatcaataatgctgatcagaagtcgccgaagggtttcctccatggaacct 300  
|||||  
Rufi: 238 aaacatgaagacatcaataatgctgatcagaagtcgccgaagggtttcctccatggaacct 297

Nip: 301 ggtgagcaattggagaagagtggactctcagaagagcatggagctccttgctttactcag 360  
|||||  
Rufi: 298 ggtgagcaattggagaagagtggactctcagaagagcatggagctccttgctttactcag 357

Nip: 361 acagagcatggctctccagagagttcacaggacagcagcaagagaagaaagggttggtta 420  
|||||  
Rufi: 358 acagtgcagtggtctccagagagttcacaggacagcagcaagagaagaaagggttggtta 417

Nip: 421 cccagtcctagccaagctaagaatggtaacatccttcgaataaagataagaagagatcaa 480  
|||||  
Rufi: 418 cccagtcctagccaagctaagaatggtaacatccttcgaataaagataagaagagatcaa 477

Nip: 481 gattcttcagcttccctttcgagaaatctaattgtgtacaaacaccagttcatcaaagt 540  
|||||  
Rufi: 478 gattcttcagcttccctttcgagaaatctaattgtgtacaaacaccagttcatcaaagt 537

Nip: 541 ggatcagtttcatctctgccaagtaagaaaaactcaatgcaaccacacaacaccgaaatg 600  
|||||  
Rufi: 538 ggatcagtttcatctctgccaagtaagaaaaactcaatgcaaccacacaacaccgaaatg 597

Nip: 601 atggtgagaacagcatcaacccagcagcaaagcatcaaaggatgttttcaagcagtaccg 660  
|||||  
Rufi: 598 atggtgagaacagcatcaacccagcagcaaagcatcaaaggatgttttcaagcagtactg 657

Nip: 661 aaacaaggatgccaacccagcaaaagtcagccaagagtcgatgttcctccatctatg 720  
|||||  
Rufi: 658 aaacaaggatgccaacccagcaaaagtcagccaagagtcgatgttcctccatctatg 717

Figure 1

Nip: 721 agggcatcaaaggaaaggattggccttcgtcctgcagagatggtggccaatggtggctcct 780  
|||||  
Rufi: 718 agggcatcaaaggaaagggttggccttcgtcctgcagagatggtggccaatggtggctcct 777  
|||||

Nip: 781 tcaccctccaaggcaaaacagattgtcaatcctgcagctgctaagggttacacaaagagtt 840  
|||||  
Rufi: 778 tcaccctccaaggcaaaacagattgtcaatcctgcagctgctaagggttacacaaagagtt 837  
|||||

Nip: 841 gatcctccacctgccaaggcatctcagagaattgatcctctgttgccatccaagggttcatt 900  
|||||  
Rufi: 838 gatcctccacctgccaaggcatctcagagaattgatcctctgttgccatccaagggttcatt 897  
|||||

Nip: 901 atagatgctactcgatcttttacgaaggtctcccagacagagatcaagccggaagtacag 960  
|||||  
Rufi: 898 atagatgctactcgatcttttacgaaggtctcccagacagagatcaagccggaagtacag 957  
|||||

Nip: 961 cccccaattctgaagggtgctgtggctatgcctaccatcaatcgtcagcagattgacacc 1020  
|||||  
Rufi: 958 cccccaattctgaagggtgctgtggctatgcctaccatcaatcgtcagcagattgacacc 1017  
|||||

Nip: 1021 tcgcagcccaaagaagagccttgctcctctggcaggaatgctgaagctgcttcagtatca 1080  
|||||  
Rufi: 1018 tcgcagcccaaagaagagccttgctcctctggcaggaatgctgaagctgcttcagtatca 1077  
|||||

Nip: 1081 gtagagaagcagtcctaagtcagatcgcaaaaagagccgcaaggctgagaagaaagagaag 1140  
|||||  
Rufi: 1078 gtagagaagcagtcctaagtcagatcgcaaaaagagccgcaaggctgagaagaaagagaag 1137  
|||||

Nip: 1141 aagttcaaagattttattgttacctgggatacctccgtctatggaaatggatgatatggat 1200  
|||||  
Rufi: 1138 aagttcaaagattttattgttacctgggatacctccgtctatggaaatggatgatatggat 1197  
|||||

Nip: 1201 ctcggggaccaggattggctgcttgatagtagcaggaaacctgatgctggcattggcaac 1260  
|| |||||  
Rufi: 1198 cttggggaccaggattggctgcttgtagtagcaggaaacctgatgctggcattggcaac 1257  
|||||

Nip: 1261 tgcagagaaattggtgatccacttacttctcaatcagcagagcagttctcattgcagcct 1320  
|||||  
Rufi: 1258 tgcagagaaattggtgatccacttacttctcaatcagcggagcagttctcattgcagcct 1317  
|||||

Nip: 1321 agggcgattcatttaccagaccttcatgtctatcagttgccatattgtggttccattctag 1380  
|||||  
Rufi: 1318 agggcgattcatttaccagaccttcatgtctatcagttgccatattgtggttccattctag 1377  
|||||  
STOP

Nip: (nucleotides 1-36 of SEQ ID NO:4 and SEQ ID NO:5)  
Rufi: (nucleotides 1-17 of SEQ ID NO:27 and SEQ ID NO:29)

Figure 1 (continued)

1007904-0190  
206T20-2406200T

Nip: 1 MSRCFPYPPPGYVRNPVVAVAAAAEAQATTKLQKEREKAEKKKEKRSRDRKALPHGEISKHS 180  
Rufi: 1 MSRCFPYPPPGYVRNPVVAVAAAAEAQATTKLQKEREKAEKKKEKRSRDRKALPHGEISKHS 180

Nip: 181 KRTHHKRKHEDINNADQKSRKVSSMEPGEQLEKSGLSEEHGAPCFTQTEHGSPRESSQDS 360  
Rufi: 181 KRTH-KKRKHEDINNADQKSRKVSSMEPGEQLEKSGLSEEHGAPCFTQTVHGSPRESSQDS 360

Nip: 361 SKRRKVVLPSPSQAKNGNILRIKIRRDQDSSASLSEKSNVVQTPVHQMGSVSSLPSKKN 540  
Rufi: 361 SKRRKVVLPSPSQAKNGNILRIKIRRDQDSSASLSEKSNVVQTPVHQMGSVSSLPSKKN 540

Nip: 541 MQPHNTEMMVRTASTQQQSIKGFQAVPKQGMPTPAKVMPRVDVPPSMRASKERIGLRPA 720  
Rufi: 541 MQPHNTEMMVRTASTQQQSIKGFQAVLKQGMPTPAKVMPRVDVPPSMRASKERVGLRPA 720

Nip: 721 EMLANVGPSPSKAKQIVNPAAAKVTQRVDPPPAKASQRIDPLLPSKVHIDATRSFTKVSQ 900  
Rufi: 721 EMLANVGPSPSKAKQIVNPAAAKVTQRVDPPPAKASQRIDPLLPSKVHIDATRSFTKLSQ 900

Nip: 901 TEIKPEVQPPILKVPVAMPTINRQQIDTSQPKEEPCSSGRNAEAAASVSVEKQSKSDRKKS 1080  
Rufi: 901 TEIKPEVQPPIPKVPVAMPTINRQQIDTSQPKEEPCSSGRNAEAAASVSVEKQSKSDRKKS 1080

Nip: 1081 RKAEEKKEKKFKDLFVTWDPPEMEMDDMDLGDQDWLLDSTRKPDAGIGNCREIVDPLTSQS 1260  
Rufi: 1081 RKAEEKKEKKFKDLFVTWDPPEMEMDDMDLGDQDWLLGSTRKPDAGIGNCREIVDPLTSQS 1260

Nip: 1261 AEQFSLQPRAIHLPLDHVYQLPYVVPF 1344 (SEQ ID NO:6)  
Rufi: 1261 AEQFSLQPRAIHLPLDHVYQLPYVVPF 1344 (SEQ ID NO:30)

Figure 2

Figure 3

20051220 21062001

Maize: 721 cgggcctacctctgaagtcttcgggaagtgtggacccttcgcctgctagagttatgagaa 780  
|||||  
Teo: 721 cgggcctacctctgaagtcttcgggaagtgtggacccttcgcctgctagagttatgagaa 780

Maize: 781 gatttgatcctccacctgttaagatgatgtcacagagagttcaccatccagcttccatgg 840  
|||||  
Teo: 781 gatttgatcctccacctgttaagatgatgtcacagagagttcaccatccagcttccatgg 840

Maize: 841 tgtcgcagaaaagttgatcctccggtttccgaaggtattacataaggaaacccggatctgttg 900  
|||||  
Teo: 841 tgtcgcagaaaagttgatcctccggtttccgaaggtattacataaggaaacccggatctgttg 900

Maize: 901 ttcgcctaccagaagctaccggcctactgttcttcaaaaacccaaggacttgccctgcta 960  
|||||  
Teo: 901 ttcgcctaccagaagctaccggcctactgttcttcaaaaacccaaggacttgccctgcta 960

Maize: 961 tcaagcagcaggatatcaggacctcttcctcaaaagaagagccctgcttctctggttagga 1020  
|||||  
Teo: 961 tcaagcagcaggatatcaggacctcttcctcaaaagaagagccctgcttctctggttagga 1020

Maize: 1021 atgcagaagcagttcaagtgaagataactaagctctcccggtcagacatgaagaaaatcc 1080  
|||||  
Teo: 1021 atgcagaagcagttcaagtgaagataactaagctctcccggtcagacatgaagaaaatcc 1080

Maize: 1081 gcaaagctgagaaaaaagataagaagttcagagatctgtttgttacctggaatccggtat 1140  
|||||  
Teo: 1081 gcaaagctgagaaaaaagataagaagttcagagatctgtttgttacctggaatccggtat 1140

Maize: 1141 tgatagagaatgaagggttcagatcttggtgatgaagactggctgttcagcagtaaaagga 1200  
|||||  
Teo: 1141 tgatagagaatgaagggttcagatcttggtgatgaagactggctgttcagcagtaaaagga 1200

Maize: 1201 actccgatgctatcatggttcaaagcagagctactgatagttcagtgccgatccatccaa 1260  
|||||  
Teo: 1201 actccgatgctatcatggttcaaagcagagctactgatagttcagtgccgatccatccaa 1260

Maize: 1261 tgggtgcagcagaagccttctttacaaccagggaacatttttgccggaccttaatatgt 1320  
|||||  
Teo: 1261 tgggtgcagcagaagccttctttacaaccagggaacatttttgccggaccttaatatgt 1320

Maize: 1321 accagctgccatatgtcgtaccattttaaacatctggcgaggtagatgagaattagatga 1380  
|||||  
Teo: 1321 accagctgccatatgtcgtaccattttaaacatctggcgaggtagatgagaattagatga 1380  
STOP

Maize: 1381 gatgttgggagagagctg  
|||||  
Teo: 1381 gatgttgggagagagctgtgtgaacagtaggcccgggtagctt 1422

Maize: (nucleotides 1-2 of SEQ ID NO:33, SEQ ID NO:35,  
and nucleotides 1399-1447 of SEQ ID NO:34)  
Teo: (SEQ ID NO:66, and nucleotides 2581-2620 of SEQ ID NO:67)

Figure 3 (continued)

20061220-24405200F

Maize: 1 MSRCFPYPPPGYVRNPVAVAEPESTAKLLKEKEKAEEKKKEKRS DRKAPKQCETSKHSHKS 180  
Teo: 1 MSRCFPYPPPGYVRNPVAVAEPESTAKLLKEKEKAEEKKKEKRS DRKAPKQCETSKHSHKS 180

Maize: 181 HKKRKLEDVIKAEQGPKRVPKESVEQLEKSGLSEEHGAPSFVHTIRDSPESSQDSGKRRK 360  
Teo: 181 HKKRKLEDVIKAEQGPKRVPKESVEQLEKSGLSEEHGAPSFVHTIRDSPESSQDSGKRRK 360

Maize: 361 VVLSSPSQPKNGNILRFKIKSSQDPQSAVLEKPRVLEQPLVQQMGSGSSXSGKQNSIHHK 540  
Teo: 361 VVLSSPSQPKNGNILRFKIKSSQDPQSAVLEKPRVLEQPLVQQMGSGSSLSGKQNSIHHK 540

Maize: 541 MNVRSTSGQ3RVDGDSQAVQKCLITESPAKTMQRLVPQPAKVTHPVDPQSAVKVPVGRS 720  
Teo: 541 MNVRSTSGQ3RVNGDSQAVQKCLITESPAKTMQRLVPQPAKVTHPVDPQSAVKVPVGRS 720

Maize: 721 GLPLKSSGSVDPSPARVMRRFDPPPVKMMSQRVHHPASMVSQKVDPPFPKVLHKETGSVV 900  
Teo: 721 GLPLKSSGSVDPSPARVMRRFDPPPVKMMSQRVHHPASMVSQKVDPPFPKVLHKETGSVV 900

Maize: 901 RLPEATRPTVLQKPKDLPAIKQQDIRTSSSKEEPCFSGRNAEAVQVQDTKLSRSDMKKIR 1080  
Teo: 901 RLPEATRPTVLQKPKDLPAIKQQDIRTSSSKEEPCFSGRNAEAVQVQDTKLSRSDMKKIR 1080

Maize: 1081 KAEKKDKKFRDLFVTWNPVLIENEGSDLGDEDWLFSSKRNSDAIMVQSRATDSSVPIHPM 1260  
Teo: 1081 KAEKKDKKFRDLFVTWNPVLIENEGSDLGDEDWLFSSKRNSDAIMVQSRATDSSVPIHPM 1260

Maize: 1261 VQOKPSLQPRATFLPDLNMYQLPYVVPF 1347 (SEQ ID NO:36)  
Teo: 1261 VQOKPSLQPRATFLPDLNMYQLPYVVPF 1347 (SEQ ID NO:68)

Figure 4

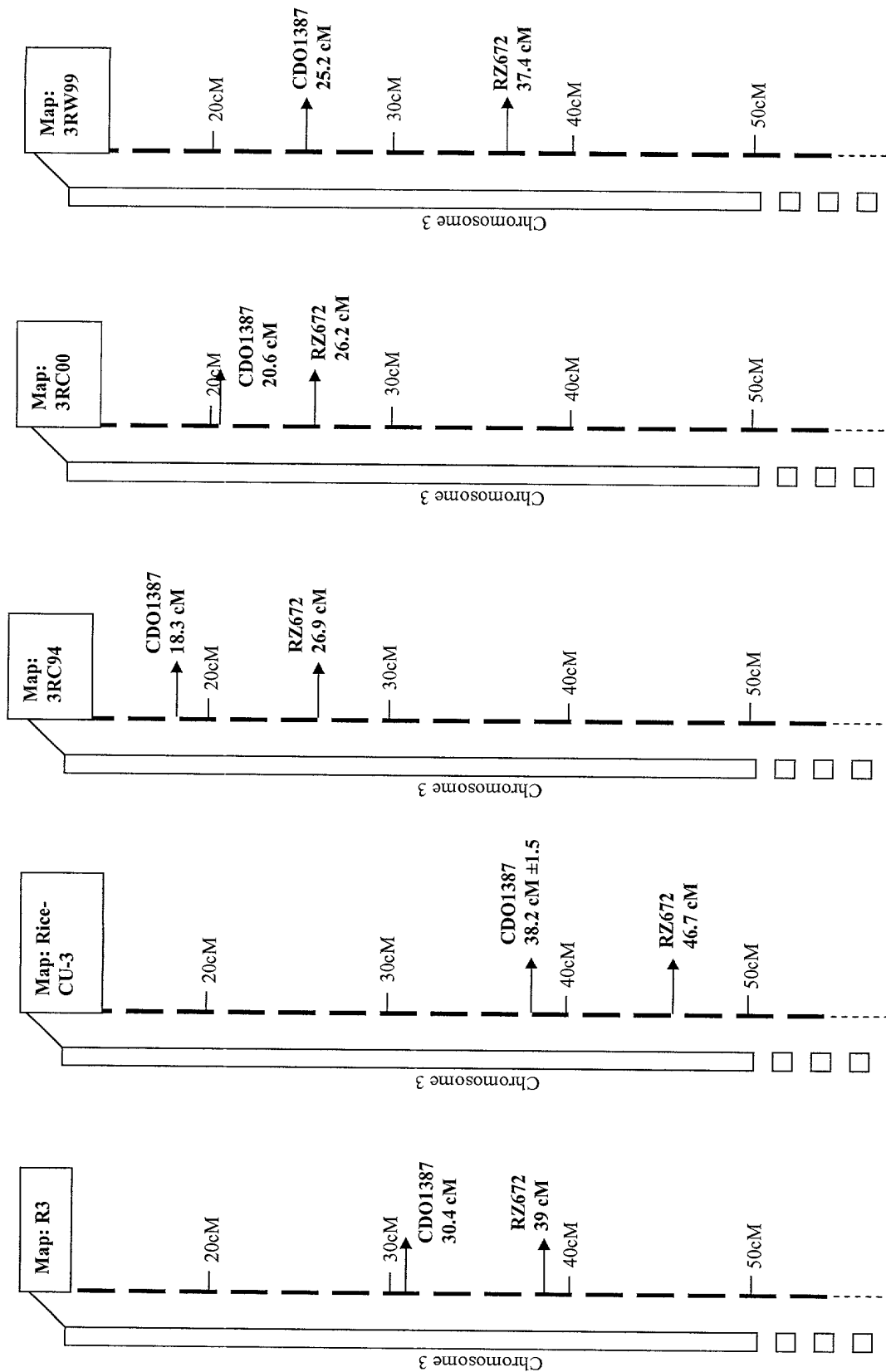


Figure 5

20061220 2405400T